

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:

a photoconductor in which a first gear portion is formed on the axis of rotation and on which an electrostatic latent image corresponding to a toner image is formed by a rotation in a circumferential direction;

a developing unit which is set correspondingly to said photoconductor, and makes visible said electrostatic latent image formed on said photoconductor thereby to form a toner image; and

a photoconductor drive shaft having a second gear portion engaging with said first gear portion and formed on an axis of rotation, which gears with said photoconductor on the same axis and rotation-drives this photoconductor,

wherein in at least either of said first gear portion and said second gear portion, an axial length of a part of teeth constituting the gear portion is different from axial lengths of other teeth.

2. An image forming apparatus comprising:

a body of the image forming apparatus;

an image forming unit which includes a photoconductor drum, a charge roller that charges said photoconductor drum, and a developing roller that makes an electrostatic latent image formed

on said photoconductor drum visible by toner, and which is attached to the body; and

a photoconductor drive shaft which is provided for the body, and transmits drive power to said photoconductor drum via splines,

wherein at least one spline of first splines formed axially on said photoconductor drum and second splines formed axially on said photoconductor drive shaft is longer axially than the other splines formed on the same axis.

3. The image forming apparatus according to Claim 2, wherein at least one of said first splines is longer than other first splines, and at least one of said second splines is longer than other second splines.

4. The image forming apparatus according to Claim 2 or 3, wherein tapers are provided for a leading end portion of said first spline and a leading end portion of said second spline in order to smooth fitting between said photoconductor drum and said photoconductor drive shaft when said image forming unit is attached to said image forming apparatus body.

5. The image forming apparatus according to Claim 4, wherein said tapers are formed in the axial directions and in

the rotational directions of said photoconductor drum and said photoconductor drive shaft.

6. The image forming apparatus according to Claims 2 or 3, wherein said spline coupling is provided at an end portion of said photoconductor drum.

7. An image forming apparatus comprising:
a body of the image forming apparatus;
an image forming unit which includes a photoconductor drum, a charge roller that charges said photoconductor drum, and a developing roller that makes an electrostatic latent image formed on said photoconductor drum visible by toner, and which is attached to the body; and

a photoconductor drive shaft which is provided for the body, and transmits drive power to said photoconductor drum via spline means for transmitting a driving force,

wherein said spline means includes facilitating means for facilitating a connection between said photoconductor drive shaft and said photoconductor drum.

8. The image forming apparatus according to Claim 7, wherein said facilitating means further includes a spline axially longer than other splines.

9. The image forming apparatus according to Claim 7 or 8, wherein a taper is formed on an end of said facilitating means for smoothening said connection between said photoconductor drive shaft and said photoconductor drum.

10. The image forming apparatus according to Claim 9, wherein said taper is formed in the axial directions and in the rotational directions of said photoconductor drum and said photoconductor drive shaft.

11. The image forming apparatus according to Claims 7 or 8, wherein said spline means is provided at an end portion of said photoconductor drum.